WHAT IS CLAIMED IS:

1. A fluid meniscus process, comprising the steps of:

(a) holding at least a portion of a first surface of an object with a holding fixture, such that at least a portion of a second surface of the object is exposed;

(b) injecting at least one liquid in a holding tank such that a fluid meniscus is formed;

(c) contacting at least a portion of the second surface of the object with at least a portion of the fluid meniscus; and

(d) removing the object after at least one contact with the fluid meniscus.

2. The fluid meniscus process of claim 1, wherein the object is selected from a group consisting of semiconductor wafer, substrate, metal and non-metal composites, metal and non-metallic material, silicon, indium phosphide, ceramic, glass, group IV element, group III-V compound, group II-VI compound, and binaries and ternaries thereof.

3. The fluid meniscus process of claim 1, wherein the object is held to the holding fixture using a method selected from a group consisting of mechanical means, vacuum means, electrostatic means, fluidic means, magnetic means and electromagnetic means.

4. The fluid meniscus process of claim 1, wherein the fluid is selected from a group consisting of an etching fluid, a plating fluid, a solvent, a photo resist, a developer and a stripper.

5. The fluid meniscus process of claim 1, wherein the fluid in the holding tank is re-circulated, agitated, heated and replenished.

6. The fluid meniscus process of claim 1, wherein the object has at least one coating of at least one material, and wherein the coating is selected from a group consisting of metal, organic material, inorganic material, insulator and resist.

7. The fluid meniscus process of claim 1, wherein the holding tank has at least one channel to hold the fluid.

8. The fluid meniscus process of claim 1, wherein the holding tank has at least one overflow channel.

9. The fluid meniscus process of claim 1, wherein the fluid is injected onto the holding tank using at least one pump.

10. The fluid meniscus process of claim 1, wherein the fluid etches at least a portion of the second surface of the object, and wherein the object is selected from a group consisting of semiconductor wafer, substrate, metal and non-metal composites, metal and non-metallic material, silicon, indium phosphide, ceramic, glass, group IV element, group III-V compound, group II-VI compound, and binaries and ternaries thereof.

11. The fluid meniscus process of claim 1, wherein the fluid meniscus is formed above the edges of the holding tank.

12. The fluid meniscus process of claim 1, wherein the fluid meniscus is used to perform a function selected from a group consisting of etching, thinning, electroplating, micro-structure release, cleaning, electronic device fabrication, electrochemical processing, photochemical processing, photo-electro plating, optoelectronic processing, patterning, resist application, developing, plating, coating and stripping.

13. The fluid meniscus process of claim 1, wherein at least a portion of the surface in contact with the holding fixture has at least one layer of protective material.

14. The fluid meniscus process of claim 1, wherein at least a portion of the surface in contact with the holding fixture has at least one layer of protective material, and wherein the protective material is selected from a group consisting of photosensitive material and photo resist material.

15. The fluid meniscus process of claim 1, wherein at least a portion of the surface in contact with the fluid meniscus has at least one layer of protective material.

16. The fluid meniscus process of claim 1, wherein at least a portion of the surface in contact with the fluid meniscus has at least one layer of protective material, and wherein the protective material is selected from a group consisting of photosensitive material and photo resist material.

17. The fluid meniscus process of claim 1, wherein the object is moved in a manner selected from a group consisting of rotation, oscillation and linear translation.

18. The fluid meniscus process of claim 1, wherein at least one gas current is supplied to the object.

19. The fluid meniscus process of claim 1, wherein at least one gas current is supplied to the object, and wherein the gas is selected from a group consisting of nitrogen and dry compressed air.

20. The fluid meniscus process of claim 1, wherein the object is subjected to an energy source selected from a group consisting of electromagnetic radiation, light, acoustical energy, mechanical energy, and thermal energy.

21. The fluid meniscus process of claim 1, wherein the object is subjected to an energy source selected from a group consisting of electromagnetic radiation, light, acoustical energy, mechanical energy, and thermal energy, and wherein the energy source is secured to the holding fixture.

22. The fluid meniscus process of claim 1, wherein the object is subjected to an energy source selected from a group consisting of electromagnetic radiation, light, acoustical energy, mechanical energy, and thermal energy, and wherein the energy source is secured to the holding tank.

23. The fluid meniscus process of claim 1, wherein after step (c) or (d) the object is repositioned so that at least a portion of the first surface of the object contacts at least a portion of the fluid meniscus.

24. The fluid meniscus process of claim 1, wherein the first surface is on the backside of the second surface.

25. The fluid meniscus process of claim 1, wherein the first surface is adjacent the second surface.

26. The fluid meniscus process of claim 1, wherein the holding fixture moves the object into contact with the fluid meniscus.

27. The fluid meniscus process of claim 1, wherein the holding tank moves the fluid meniscus into contact with the object.

28. An object having a first surface and a second surface, wherein the first surface has at least one first feature, and wherein the second surface has at least one second feature, and wherein the first feature is on the back side of the second feature, wherein the first feature is selected from a group consisting of grating, patterned features, metallic features, non-metallic features, channel, mirror, filter, through-hole, blind hole, membrane, beam, mechanical device, optical device, optoelectronic device, CMOS, MEMS, SOI and CCD, and wherein the second feature is selected from a group consisting of grating, patterned features, metallic features, non-metallic features, channel, mirror, filter, through-hole, blind hole, membrane, beam, mechanical device, optical device, optoelectronic device, CMOS, MEMS, SOI and CCD.

29. The object of claim 28, wherein the object is selected from a group consisting of semiconductor wafer, substrate, metal and non-metal composites, metal and non-metallic material, silicon, indium phosphide, ceramic, glass, group IV element, group III-V compound, group II-VI compound, and binaries and ternaries thereof.

30. An apparatus for transferring a portion of a fluid meniscus layer on an object, comprising:

(a) an object having a first surface and a second surface;

(b) a holding fixture to hold a portion of the first surface of the object, such that at least a portion of a second surface of the object is exposed;

(c) at least one holding tank containing at least one fluid with a fluid meniscus;

(d) means for transferring at least a portion of the fluid meniscus onto at least a portion of the second surface of the object; and

(e) means for removing the object after at least one contact with the fluid meniscus.